MeCan imaging

NYP7800-P78M – Microscope Documentation Set

Photomicrograph with
Nikon CoolPix P7800 !

Adapter Parts

Main Unit
Relay Lens

P-7800
Attachment

Φ30mm
Conversion
Ring

C-Mount
Sleeve

Installation

Remove lens ring first
(Rotate counter-clockwise)

Next, screw adapter
into camera and install.

** For installation to microscope, please see next page

When using Φ30mm conversion ring
Insert main unit all the way down to
the 30Φring. It should be fit tight.

When using C-mount sleeve

1. Attach C-mount sleeve into microscope C-mount.
2. Insert main unit (with φ30mm conversion ring)
   into C-mount sleeve and secure with screw.

Installation to Microscope

Installing to Eyepiece

Remove eyepiece and insert adapter to eyepiece tube.
When tube inside diameter is Φ30mm, attach conversion ring to main unit first, and insert it into eyepiece tube.
When it is Φ23.2mm, insert main unit directly into eyepiece tube.

* Adapter may start to rotate when diopter ring is attached to eyepiece. In such case, insert the adapter after turning diopter ring to either end.

Nikon F phototube

Insert main unit to Nikon F-tube. In recent Nikon models, the ones With V-T phototube part is equipped with F-tube.
In older models, Optiphot, Biophot, SMZ-2T trinocular models are with F-tube. When 35mm camera or Polaroid system is installed to microscope, it is likely be same as the old models.

*SMZ-10 require optional sleeve. * Adapter may start to rotate when diopter ring is attached to eyepiece. In such case, insert the adapter after turning diopter ring to either end.

C-mount

C-mounts is often used for attaching CCD cameras, and has male screw of outer diameter 25.4mm. First, attach C-mount sleeve to microscope C-mount. Second, insert main unit (with φ30mm conversion ring) into C-mount sleeve and secure with screw.

*Compatible only with direct (1.0x) C-mount. C-mount with lens inside should not be used.

Olympus PT phototube

A PT phototube has an outer diameter of φ38mm with curving threads at the top. U-SPT, SZ-PT tubes are with PT-tube. When 35mm camera or Polaroid system is installed to microscope, it is likely be PT tube. It requires fixation sleeve **NY-BH (option)** to secure adapter to microscope.

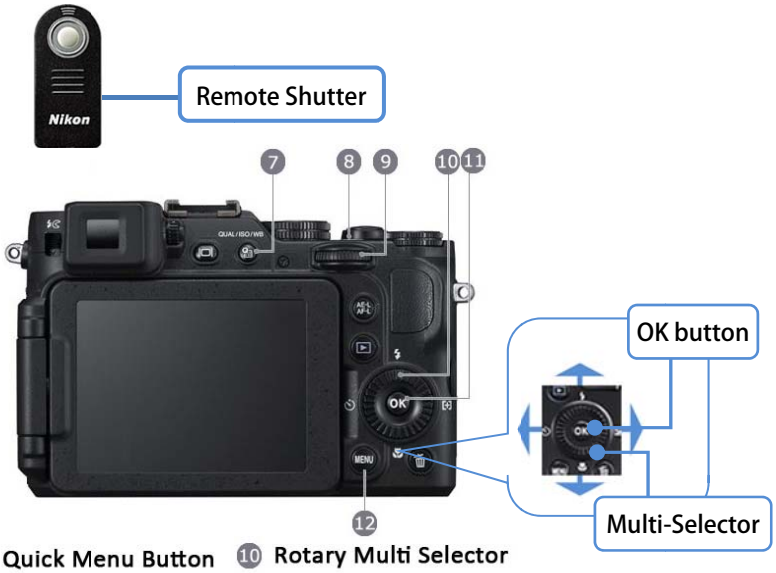
JIS phototube

JIS tube has outer diameter φ25mm,
and inner diameterΦ23.2mm. Old Olympus models are often equipped with JIS tube. It requires fixation sleeve **NY-JIS (option)** to secure adapter to microscope

*without NY-JIS, image may come out blurry.

Camera Setting

■ Main Features



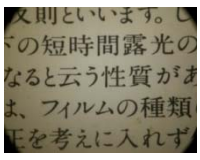
1 Exposure Dial
2 Shutter Button
3 Mode Dial
4 Function Button 1
5 Zoom Control
6 Function Button 2
7 Quick Menu Button
8 Power Switch
9 Main Command Dial
10 Rotary Multi Selector
11 OK (apply/select) btn
12 Menu Button

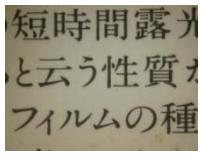
** Please refer to camera manual for basic operation and initial set up.

○ Easy Setting ・・・ Easy semi-auto mode

- Set the Mode Dial to Scene.
- Press Menu Button , and rotate command dial to select Landscape. Press OK.
- Press Zoom control to T (right). Zoom up till there will be no vignette.

Zoom (W)





Zoom (T)

- Focus with microscope focus handle while checking image on LCD viewer.
  ** Focus point is different for microscope and digital cameras.
  Please make sure to focus with microscopes while watching LCD viewer.
- Press Shutter Release (or remote shutter) to capture image.
- Press the Playback Button to check image taken.
- Rotate Exposure Dial and adjust exposure level. ＋ for brighter and － for darker.

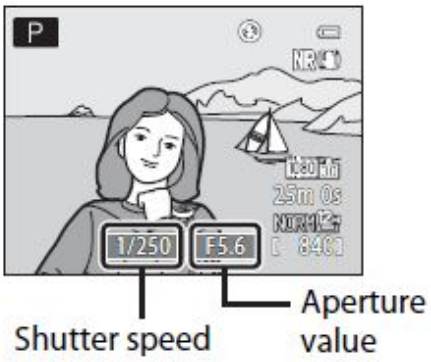
○ **Manual Setting** ・・・Try manual setting when not satisfied with brightness, focusing, or color level of the image taken with easy setting.

- Rotate and set Mode Dial to M (manual).
- Press Focus Mode on the multi-selector. Select MF (manual focus) and press OK.
- Using Multi- Selector , set focus level up to∞ (Infinite) and fix.
- Adjust the focus with microscope fine adjusting handle.
- Press Zoom control to T (right). Zoom up till there will be no vignette.
- Press Quick Menu Button and select ISO Sensitivity to set ISO level.

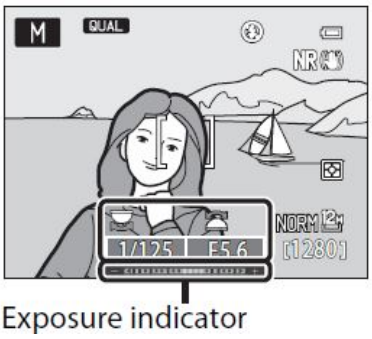
  ＊ISO sensitivity is camera’ s base sensitivity. Higher the number, more you be able to capture images in dark environment. However, when it is set higher than 800, noise starts to appear, therefore try keeping it low level as long as there is no light shortage.

Exposure Setting (P49)

- Rotate Sub-Command Dial and select lowest F# value.



- Next, rotate Command Dial to change Shutter Speed until Exposure Indicator indicate center value (±0)



- Take a picture for a test. When image is too bright, try shorter shutter speed(−).
  In the same manner, when image is too dark, try longer shutter speed (+)

Brightness of image depends on following 3 criteria.
Please refer when using manual setting.

BRIGHT			DARK
High • • •	ISO	• • • Low	
Low • • •	Exposure (F/#)	• • • High	
Long • • •	Shutter Speed	• • • Short	

- When you have a wireless remote control (ML-L3), press Self-Timer. Select Remote Control, and press OK.
- When setting is finished, take a picture for test using Remote Control.
- Pressing Play button after taking shot enables you to see and check image.
- Registering the setting in mode dial U1, U2, or U3 enables you to shoot next time with the same setting by just switching to this mode.
  Press Menu Button. Use multi selector to choose Save User Setting and press OK.

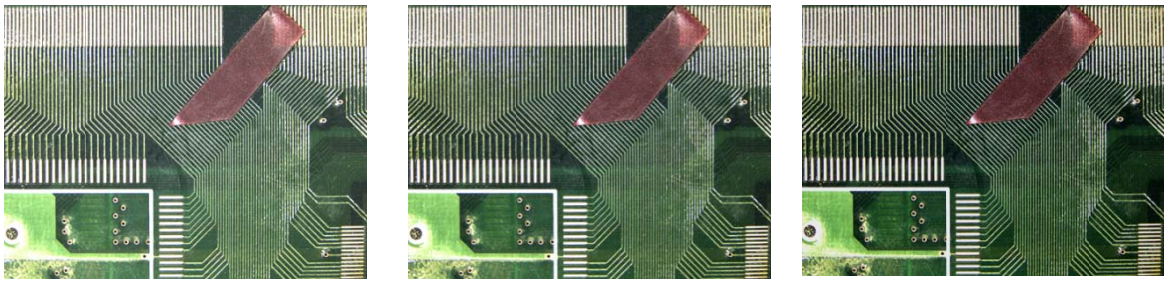
○ **Other Setting** • • Please also refer to CoolPix P7800 user manual for detail

- **White Balance** • • Please adjust white balance manually when it is hard to produce desired image due to the sample color or tone of light. (Ref 35)
- **Picture Control** • • Change the settings for image recording according to your preference Sharpness, contrast and saturation can be adjusted in detail. (Ref 40)
- **Image Size** • • Small data size enables you to capture more images with single memory card and easy to handle whereas large data size is more suitable for printing and enlargement. (ref P29)
- **Auto Off** • • When no operation is performed for the selected time length, the monitor would shut off and camera enter standby mode. When the AC adapter is connected, it is set for 30 minutes automatically. (Ref P84)
- **Date Imprint** • • Date and time of recording can be imprinted on pictures. (Ref P77)

Other thing you can do with CoolPix P7800

Exposure Bracketing enables to capture image with 3 different exposures in a single shot.

(Ref P38)

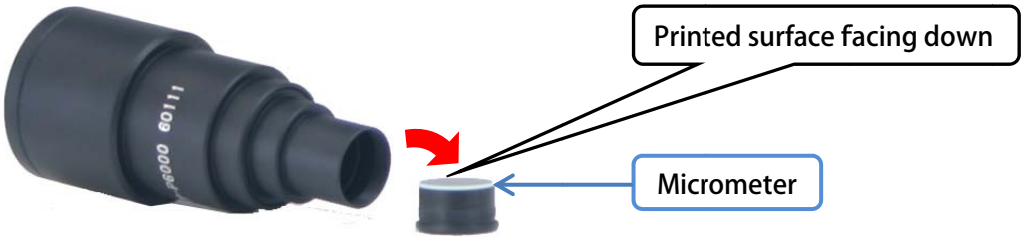


+0.3 | Base Pic | −0.3

Active D-Lighting reduces over and under exposure, preserve details in highlights and shadows, creating photograph with natural contrast. (Ref P56)

Ocular Micrometer Installation

Φ21mm ocular micrometer can be installed into NY-P7800. First turn the adapter tip to counter-clockwise and remove installing bracket. Next, insert ocular micrometer to bracket with printed surface facing down. Finally, reinstall bracket to adapter body to set.



S11-CF - Special design micrometer for digital camera adapter

(10mm/100split pitch 0.1mm)

S11-CF removes numbers written on the micrometer and also shifted scale slightly to the edge for clearer view.